



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,025	07/02/2003	Kevin T. Chan	14885US01	5831
23446	7590	11/24/2009	EXAMINER	
MCANDREWS HELD & MALLOY, LTD			DAVENPORT, MON CHERI S	
500 WEST MADISON STREET			ART UNIT	PAPER NUMBER
SUITE 3400			2462	
CHICAGO, IL 60661			MAIL DATE	DELIVERY MODE
			11/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/612,025	CHAN, KEVIN T.	
	Examiner	Art Unit	
	MON CHERI S. DAVENPORT	2462	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 July 0209.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5, 7-15, 17-25 and 27-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 31-33 is/are allowed.
 6) Claim(s) 1-5, 7-15, 17-25 and 27-30 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 11 and 21** rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. (US Patent Application 2004/0223462) in view of Applicant admitted prior art(APA).

Regarding **claim 1, 11, and 21** Cromer et al. discloses a method for providing and configuring secure communication links, the method comprising:

determining any one usable media pair from at least three media pairs of all existing media pairs of a first device(see [0023], lines the NIC finds a functional signal wires in media 103, see figure 3, at least three media pairs, see [0017], 4-pair (8 wire) CAT 5 cabling suitable for use in 10, 100, and 1000 Mbps Ethernet systems as specified in IEEE 802.3. Such systems include 10BaseT4, 100BaseT4, and Gigabit Ethernet systems, therefore a useable pair is determined from at the at least three pairs of all):

wherein the device communicates using at least three media pairs of said all existing media pairs(see figure 3, see[0032], the 4 pair media device)

Cromer et al. fails to specifically point out selecting any one channel from all existing channels, said selected any one channel being different from a general channel assignment corresponding to said determined any one usable media pair, assigning said selected any one channel to said any one media pair as claimed.

However APA teaches selecting any one channel from all existing channels, said selected any one channel being different from a general channel assignment corresponding to said determined any one usable media pair (see [04], lines 1-6, auto-MDIX reconfigure channels to properly reassign the media pairs to channels, therefore a channel is determined from all existing channels , see also [12], and fig. 1, the first controller and the second controller is independent and all existing channels for each controller is independent); and assigning said selected any one channel to said any one media pair (see [04], lines 1-6, auto-MDIX reconfigure channels to properly reassign the media pairs to channels) .

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. invention with APA invention because Cromer et al. improves automation in Ethernet LAN's by extending the auto-negotiate process to include a gigabit functional verification when the auto-negotiate process negotiates a gigabit data rate for a particular connection (see Cromer et al. [0015], lines 1-5).

3. **Claims 2-5, 7-10, 12-15, 17-20, 22-25, and 27-30** rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. in view of Applicant's admitted prior art in further in view of Bontemps et al. (US Patent 5,923,663).

Regarding **Claims 2, 12 and 22**, Cromer et al. in view of Applicant's admitted prior art discloses everything as claimed above (see claims 1, 11 and 21).

However Cromer et al. in view of applicant's admitted prior art fails to specifically point out notifying a second device of said assigned any one channel which corresponds to said any one media pair as claimed.

Bontemps et al. teaches notifying a second device(DFF, figure 4) of said assigned any one channel which corresponds to said any one media pair (see figure 4, section DFF(D-type flip-flop),see col. 13-14, lines 60-2, the DFF asserts the Xover_sel1 signal at its output, it receives the assignment signal xover_sel).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type (see Bontemps et al. col. 3, lines 39-41).

Regarding **Claims 3, 13 and 23**, Cromer et al. in view of Applicant's admitted prior art in further in view of Bontemps et al. discloses everything as claimed above (see claims 2, 12 and 22).

However Cromer et al. in view of applicant's admitted prior art fails to specifically point out cross-connecting a corresponding channel and media pair for said second device, said cross-connected channel and media pair being equivalent to said selected any one channel assigned to said any one media pair as claimed.

Bontemps et al. teaches cross-connecting a corresponding channel and media pair for said second device, said cross-connected channel and media pair being equivalent to said selected any one channel assigned to said any one media pair (see col. 13, lines 9-28, table of crossover configurations) .

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type (see Bontemps et al. col. 3, lines 39-41).

Regarding Claims 4, 14, and 24, Cromer et al. in view of Applicant's admitted prior art discloses everything as claimed above (see claims 1, 11, and 21).

However Cromer et al. in view of applicant's admitted prior art fails to specifically point out negotiating said assignment of said selected any one channel to said any one media pair as claimed.

Bontemps et al. teaches negotiating said assignment of said selected any one channel to said any one media pair (see col. 14, lines 46-53, the DFF is in toggle mode, toggling (reads on negotiating) the xover_sell signals)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type(see Bontemps et al. col. 3, lines 39-41).

Regarding Claims 5, 15, and 25, Cromer et al. in view of Applicant's admitted prior art discloses everything as claimed above (see claims 1, 11, and 21).

However Cromer et al. in view of Applicant's admitted prior art fails to specifically point out selecting from a plurality of predetermined channel and media pair assignments, a particular one of said channel and media pair assignment as claimed.

Bontemps et al. teaches selecting from a plurality of predetermined channel and media pair assignments, a particular one of said channel and media pair assignment (*see col. 14, lines 46-53, the link_detect1 signal is asserted, which detects a valid communication link, selected*)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type(see Bontemps et al. col. 3, lines 39-41).

Regarding **Claims 7, 17 and 27**, Cromer et al. in view of Applicant's admitted prior art in further in view of Bontemps et al. discloses everything as claimed above (see claims 6, 16 and 26).

However Cromer et al. in view of applicant's admitted prior art fails to specifically point out securely transferring communication traffic via said communication channel and media pair as claimed.

Bontemps et al. teaches securely (reads on working) transferring communication traffic via said communication channel and media pair (see col. 15, lines 20-24, the automatic media detection circuit, establishes a working communication link).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type(see Bontemps et al. col. 3, lines 39-41).

Regarding **Claims 8, 18, and 28**, Cromer et al. in view of Applicant's admitted prior art in further in view of Bontemps et al. discloses everything as claimed above (see claims 7, 17, and 27).

However Cromer et al. in view of applicant's admitted prior art fails to specifically point out securely transferring control information via at least one of said communication channel and media pair as claimed.

Bontemps et al. teaches securely transferring control information via at least one of said communication channel and media pair (see col. 13, lines 29-45, control information is XOVER_SELx and LINK_DETECTx signals).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type(see Bontemps et al. col. 3, lines 39-41).

Regarding **Claims 9, 19 and 29**, Cromer et al. in view of Applicant's admitted prior art in further in view of Bontemps et al. discloses everything as claimed above (see claims 8, 18, and 28).

monitoring at least one of said communication channel and media pair by a second device (see [06] lines 1-4, Ethernet@wirespeed is adapted to detect the conditions on the media and the coupling interface, media pairs are monitored) ; and

determining said selected any one channel assigned to said any one media pair(see [04], lines 1-6, auto-MDIX reconfigure channels to properly reassign the media pairs to channels)

Regarding **Claims 10, 20 and 30**, Cromer et al. in view of Applicant's admitted prior art in further in view of Bontemps et al. discloses everything as claimed above (see claims 9, 19, and 29).

However Cromer et al. in view of applicant's admitted prior art fails to specifically point out said control information is at least one of authentication information, encryption information, channel setup information and link provisioning and link maintenance information as claimed.

Bontemps et al. teaches said control information is at least one of authentication information, encryption information, channel setup information and link provisioning and link maintenance information (see col. 29-36, the control information LINK_DETECTx and XOVER_SELx, provide channel setup and link information).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Cromer et al. in view of applicants admitted prior art with

Bontemps et al. because Bontemps et al. invention provides a solution to achieve the appropriate communication link automatically regardless of cable type (see Bontemps et al. col. 3, lines 39-41).

Allowable Subject Matter

4. **Claims 31-33** allowed.

Response to Arguments

5. Applicant's arguments filed 7/13/2009 have been fully considered but they are not persuasive.

In the remarks on pgs. 16-18 of the amendment, the applicant contends that Combination of Cromer and APA does not teach or suggest "determining any one usable media pair from at least three media pairs of all existing media pairs"

Examiner respectfully disagrees Cromer teaches a media device with three or more media pairs in figure 3, which a usable pair is determined from all existing media pairs, which reads on the claim language.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MON CHERI S. DAVENPORT whose telephone number is (571)270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mon Cheri S Davenport/
Examiner, Art Unit 2462
November 12, 2009

/Donald L Mills/
Primary Examiner, Art Unit 2462